



Department of Pesticide Regulation



Paul Helliher
Director

Gray Davis
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Secretary, California
Environmental
Protection Agency

June 26, 2003

EM 03-02

TO: County Agricultural Commissioners

SUBJECT: PROPOSED MITIGATION OPTIONS FOR DORMANT SPRAYS

The Department of Pesticide Regulation (DPR) is developing a concept for a new regulation addressing applications of pesticides to dormant orchards. The objectives of the regulation will be the reduction of offsite movement of pesticides from treated orchards and improvement of water quality. Rationale for this proposal is presented below, along with a proposed schedule of activities.

Background

During the 1980s, Central Valley Regional Water Board staff conducted studies in the San Joaquin and Sacramento Rivers to determine the impact of dormant sprays on water quality. Their studies showed that organophosphate pesticides like diazinon caused toxicity in the rivers during storm events. DPR staff conducted additional studies and concluded that dormant sprays can contribute to toxicity in the rivers.

DPR agreed to conduct monitoring for dormant sprays in the San Joaquin and Sacramento Rivers for five years, then assess the monitoring data. If toxicity attributed to dormant sprays persisted through the 2000-2001 season, DPR agreed to consider regulatory options to reduce dormant spray concentrations to acceptable levels. DPR staff evaluated monitoring data from 22 studies conducted by various organizations during 1991-2001. Our analysis is available on DPR's Web site in report EH 01-01. The monitoring data indicated that diazinon concentrations still exceeded the Department of Fish and Game's water quality criteria. Therefore, DPR put diazinon products used as dormant sprays into reevaluation. Registrants were required to identify processes with which diazinon dormant sprays contribute to surface water detections and mitigation strategies that will reduce or eliminate diazinon in surface water. The registrants have proposed several label changes aimed at mitigating the problem. If the label amendments are acceptable to DPR and the U.S. Environmental Protection Agency, then the label changes will be effective for the 2003-04 or 2004-05 dormant spray season.

Additional Regulatory Options

Currently DPR is considering regulations to prevent all pesticides used as dormant sprays from causing toxicity in surface water. We believe that if growers simply switch from diazinon to

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other pesticides, offsite movement and surface water toxicity may continue. We propose applying mitigation options to all pesticides used as dormant sprays.

We have compiled a list of potential mitigation options (see attached) for your review and comment by July 10, 2003. We plan on meeting with stakeholders in the near future and receiving their proposals for mitigation and comments on our list of potential options.

Proposed Schedule

Summer 2003:	Workshops with stakeholders
January 2004:	Issue public notice for proposed regulation
Fall 2004:	Regulations go into effect

Please send any comments you have to me by e-mail at <jsanders@cdpr.ca.gov> or by letter to:

John S. Sanders, Ph.D., Chief
Environmental Monitoring Branch
Department of Pesticide Regulation
P.O. Box 4015
Sacramento, California 95812-4015

If you have questions, please call me.

Sincerely,

Original signed by:

John S. Sanders, Ph.D., Chief
Environmental Monitoring Branch
(916) 324-4100

Attachment

cc: Mr. Daniel J. Merkley, DPR Agricultural Commissioner Liaison (w/Attachment)

PROPOSED MITIGATION OPTIONS FOR DORMANT SPRAY PESTICIDES

(The proposed regulations do not affect applications of dormant oils without other pesticides or herbicides that may be applied to tree rows during the dormant season.)

1. Dormant spray applications are restricted to ground applications only.
2. Do not apply within 100 feet upslope of any sensitive aquatic site that may drain into a river or tributary unless runoff is contained or diverted from the sensitive aquatic site. Waters that are contained or diverted must be held for 72 hours before they can be released into a sensitive aquatic site.
3. Maintain a vegetative buffer strip a minimum of 10 feet wide from the edge of the field to sensitive aquatic sites.
4. Do not apply dormant sprays (except oil alone) when soil moisture is at field capacity and a storm is predicted in the next 48 hours.
5. Do not apply dormant sprays (except oil alone) when surface runoff to sensitive aquatic sites from a rain event could occur within 48 hours after the application.
6. Make dormant applications only when insect-scouting information indicates pest populations have reached damaging levels. (See University of California Integrated Pest Management Guidelines for San Jose Scale in stone fruits and almonds, and aphids in stone fruits. Use the prune dormant-spur sampling program to determine the need for a dormant treatment in that crop.)
7. Apply only when wind speed is 3-10 mph at the application site as measured by an anemometer outside of the orchard on the upwind side.
8. When air currents are moving (>3 mph) toward sensitive aquatic sites, commence applications on side nearest the site and proceed spraying away from the water body.
9. Spray last three rows upwind of bodies of water using nozzles on one side only, with spray directed away from sensitive aquatic sites.
10. Reduce the maximum rate of application and the number of applications.
11. Alternate the dormant use of organophosphorous and pyrethroid insecticides with other environmentally reduced risk pesticides or make application in season according to University of California Integrated Pest Management recommendations.